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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/575,230	04/07/2006	Norihiro Suzuki	1391,1072	6966
21171	7590	04/13/2011	EXAMINER	
STAAS & HALSEY LLP			SANDERS, HOWARD J	
SUITE 700			ART UNIT	PAPER NUMBER
1201 NEW YORK AVENUE, N.W.				3653
WASHINGTON, DC 20005			MAIL DATE	DELIVERY MODE
			04/13/2011	PAPER

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/575,230

Filing Date: April 07, 2006

Appellant(s): SUZUKI ET AL.

Aaron Walker
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 01/24/11 appealing from the Office action
mailed 06/24/10.

(1) Real Party in Interest

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The following is a list of claims that are rejected and pending in the application: Claims 1, 2, and 4-7 have been rejected and are on appeal. Claim 3 was objected to as being dependant upon a rejected base claim, but would be allowable if rewritten in independent form including all the limitations of the base claim.

(4) Status of Amendments After Final

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

(5) Summary of Claimed Subject Matter

The examiner has no comment on the summary of claimed subject matter contained in the brief.

(6) Grounds of Rejection to be Reviewed on Appeal

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being

maintained by the examiner except for the grounds of rejection (if any) listed under the subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

(7) Claims Appendix

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

(8) Evidence Relied Upon

5,755,434	Takatoshi	5-1998
6,247,693	Kawano	6-2001

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, and 4-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Takatoshi et al. US 5,755,434 ("Takatoshi"). Takatoshi disclosed a bottom removal type paper supply apparatus having:

a paper support base (2) on which paper is stacked located at a bottom part of the bottom removal type paper supply apparatus;

a first pickup roller (51) provided at an end portion of the paper stacked on the paper support base, on a side toward a body of the bottom removal type paper supply apparatus and which picks a paper sheet from the paper stacked on the paper support base from the bottom and transports the paper sheet on a paper path (as seen in Figure 1);

a pressing roller (50) which applies a pressure to the paper stacked on the paper support base towards the first roller, and which is provided at the end portion of the paper stacked on the paper support base;

a second pickup roller (21) provided at a central portion of the paper stacked on the paper support base, and selectively assisting the first pickup roller to transport the paper sheet into the bottom removal type paper supply apparatus including when the paper stack weighs more than a prescribed weight; and

a shutter (including 60 and 60a) switchable between an open state in which the paper is in contact with the second pickup roller enabling the second pickup roller to assist the first pickup roller to transport the paper on the paper path, and a closed state in which the shutter prevents contact between the paper and the second pickup roller, the shutter being provided on the second pickup roller (Column 5, lines 13-40 and Figures 10-12).

The shutter may prevent contact between the second pickup roller and the paper stack including while the paper stack weighs less than the prescribed weight.

The apparatus further comprising a sensor (52) located along the paper path to sense when the first pickup roller fails to transport the paper on the paper path while the

shutter is in the closed state, and to send a control signal to switch the shutter in the open state, the shutter being controlled to be in the open state including when a failure of the first pickup roller to transport the paper on the paper path has occurred, and to be in the closed state while the first pickup roller successfully transports the paper on the paper path through the apparatus (see Column 4, line 66 – Column 5, line 40).

The shutter and the second pick-up roller have a common axis (for example (21b) in Figure 10), the shutter has at least one first portion that has an arcuate cross section (60a) which extends to a larger distance from the common axis than the pick-up roller, and at least one second portion (in the middle of 60), which extends to a smaller distance from the common axis than the pick-up roller. The at least one first portion is in contact with the paper stacked on the paper support base when the shutter is closed.

The pressure applied to the paper by the pressing roller is adjustable. Using sheets of different thicknesses will cause the pressure applied to be adjusted. Applicant neglected to claim actual components that enable that which has only been claimed thus far as a desired way of using parts of the apparatus. Such structural limitations are necessary when distinguishing apparatus claims from prior art devices.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takatoshi et al. in view of Kawano US 6,247,693 B1. Takatoshi et al. disclosed the limitations of claim 1 as listed above, but may not have specified increasing the pressure to a sheet in steps. Kawano teaches having pressure applied to paper by a pressing roller (41) adjustable (see the last paragraph in Column 8). Furthermore the pressure applied to paper by the pressing roller is increased in steps (as described also in the top paragraph in Column 9). This would be true even if the first pick up roller (37) failed to transport paper for whatever reason. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of Kawano in the apparatus of Takatoshi et al. to adjust and increase the pressure applied by the pressure rollers for efficient sheet feeding as taught by Kawano.

The Examiner further points out with regard to claim 7, that the feature, "wherein the pressure applied to the paper by the pressing roller is increased in steps" is conditionally claimed. If the pickup roller does not fail to transport paper, this feature is not required.

(10) Response to Argument

a. Review of the prior art

The Examiner agrees with the overview of Takatoshi presented by the Appellants.

b. Takatoshi anticipates "a second pickup roller [...] selectively assisting the first pickup roller to transport the paper sheet into the bottom removal-type paper supply apparatus" as recited in claim 1

Appellants argue that since in Takatoshi no banknote is output unless roller 21 is in contact with the stack, the roller may not be considered selectively assisting the first pickup roller 51. Rather that the first pickup roller 51 must be able to feed without any assistance whatsoever from roller 21.

In response, roller 21 only assists the first pickup roller 51 in feeding a sheet until the moment the tail end of the sheet passes roller 21. The remainder of the transporting of the sheet from the stack into the bottom removal-type paper supply apparatus is carried out by the first pickup roller 51 without roller 21 assisting (Column 5, Lines 32-35 of Takatoshi). Therefore roller 21 of Takatoshi selectively assists the first pickup roller 51 up to and until the sheet is beyond the reach of roller 21.

The Examiner further contends that Appellants use too narrow a reading of "selectively assisting." The mere fact that roller 21 assists in transportation while a sheet is being transported and does not assist when a sheet is not being transported, can also be called selectively assisting.

For these reasons the Examiner maintains that according to the broadest reasonable interpretation of the words selectively assisting, Takatoshi anticipates the claimed limitation.

c. Takatoshi anticipates "a pressing roller which applies a pressure to the paper stacked on the paper support base towards the first roller" as recited in claim 1

Appellants could not find within Takatoshi's disclosure that pressing roller applies pressure to the paper stacked on the paper support base towards the first roller. Nor

was there a mechanism in Takatoshi shown to provide pressure. Appellants note that pressing roller 50 is illustrated in Takatoshi to be touching the first pickup roller 51. However supposedly one of ordinary skill in the art would not appreciate that their mere contact yields a pressure to one another.

It was the Examiner's position that pressing roller 50 applies pressure to the paper stacked on the paper support base 2 towards the first [pickup] roller 51.

The Examiner points out that the language of the claim requires "a pressing roller which applies pressure **to the paper**" (emphasis added). There is no recitation of pressure from one roller to another, therefore no distinction on such grounds should be argued. As a sheet begins to be transported from the paper support base 2, the leading end of the sheet passes through the nip created between rollers 50 and 51. The sheet of paper passes between the two rollers. It is readily appreciated that the sheet must be pressed from above and below to fit through the nip of rollers 50 and 51 that Appellants acknowledge are illustrated as touching. Therefore a pressure is exerted on the sheet of paper from pressing roller 50, and is exerted towards the first roller. A sheet being fed through the nip causes the pressing roller 50 to apply equal and opposite forces or pressure across the paper. The sheet in the meantime is still stacked in the paper support base. The pressure acts in the direction of the first pickup roller 51. The Examiner, therefore, maintains that Takatoshi anticipates the claimed limitation.

d. Takatoshi anticipates "a second pickup roller, located at a central portion of the stack, to assist the first pickup roller to transport the sheet of paper

into the paper supply apparatus when the paper stack weighs more than a prescribed weight” as recited in claim 5

Appellants submit that since the second pickup roller 21 of Takatoshi is used to transport each sheet the claimed invention is not anticipated by Takatoshi. The claim requires the second pickup roller to assist the first pickup roller when the paper stack weighs more than a prescribed weight.

The Examiner takes the position that regular operation of the apparatus of Takatoshi is while the stack weighs more than some prescribed weight. For example, if the prescribed weight is that of five sheets, when the apparatus feeds sheets 50 down through sheet 6, the second pickup roller assists the first pickup roller when the paper stack weighs more than the prescribed weight of five sheets. Appellants appear to take the position that the claimed limitation requires the apparatus to take consideration of the actual stack weight before each time the second pickup roller 21 is used. This is quite a narrow reading of the words. Rather the limitation only requires that the assistance of the second pickup roller 21 occur at an interval coincidental with the stack weighing more than the prescribed weight. In fact each and every structural limitation of the claim is anticipated by Takatoshi. The Examiner submits that the claimed intended use is anticipated as well. Appellants in their arguments present a different way their apparatus is used. This should not negate that Takatoshi disclosed each and every structural limitation of the apparatus claim.

e. Takatoshi anticipates “a first pickup roller [...] to pick a paper sheet from the paper stack” as recited in claim 5

Appellants take the position that roller 51 of Takatoshi should not be considered a pick roller since roller 51 only transports a sheet after roller 21 picks a sheet prior.

A pick roller within the art of sheet feeding refers to a roller that operates to separate a sheet from a stack of sheets. Most of the time a pick roller is situated precisely where roller 51 of Takatoshi is located, toward the leading edge of the front face of a sheet in a stack of sheets. Roller 21 is generally referred to as a nudge or assist roller among other names. It is clear from Figure 1 of Takatoshi that roller 51 engages the leading portion of the sheet in the stack. Roller 21 assists the picking operation of roller 51. Therefore it is consistent with the understanding of the term pick roller in the sheet feeding art to call roller 51 of Takatoshi a pick roller. Furthermore according to the broadest interpretation of the words "to pick a paper sheet from the paper stack" any roller partaking in the separating of a sheet from a sheet stack is sufficient. Appellants presumably concede that roller 51 is used to separate the sheet albeit while roller 21 is situated upstream. That is sufficient to consider roller 51 as picking a paper sheet from the paper stack. Therefore the Examiner maintains that roller 51 of Takatoshi is reasonably called a first pickup roller which picks a paper sheet from a paper stack.

f. **Takatoshi anticipates "a shutter to prevent contact between the second pickup roller and the paper stack while the paper stack weigh[t]s less than the prescribed weight" as recited in claim 5**

Appellants argue that Takatoshi does not teach taking consideration of the stack's weight in operation of the apparatus.

It is the position of the Examiner that according to the broadest reasonable interpretation Takatoshi disclosed the claimed use. The shutter (60 and 60a) of Takatoshi prevents contact with a stack the moment a sheet being fed passes the roller 21. Column 5, lines 32-35, describe the shutter's operation. Take the example of when a prescribed weight of a stack is five sheets. When a sheet on the bottom of such a stack of five sheets is fed past roller 21, the stack begins to weigh less than the prescribed weight. It is at that moment that the shutter acts to prevent contact between the second pickup roller 21 and the remaining paper stack. This occurs while the paper stack weighs less than the prescribed weight. Additionally, while the next several sheets are fed, the shutter similarly acts each and every time to prevent contact between the second pickup roller 21 and the remaining paper stack as each sheet passes roller 21. This occurs while the paper stack weighs less than the prescribed weight.

Furthermore, a claim containing a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus if the prior art apparatus teaches all the structural limitations of the claim. *MPEP 2114*. The Examiner stresses that the claimed structure of the shutter was undisputedly disclosed by Takatoshi. Appellants essentially argue that the shutter's intended use that is recited in the claim should have patentable weight. Since this is an apparatus claim the Examiner rejects this argument and finds the claims to be structurally indistinguishable from Takatoshi.

Finally, the claimed shutter and its features are only optionally claimed. If the stack never weighs less than the prescribed weight, the shutter and its features are not necessary structural components of the claimed invention.

For these reasons, the Examiner maintains that Takatoshi anticipates the shutter as claimed.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Howard Sanders/

Conferees:

/Stefano Karmis/
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/MJ/ Marc Jimenez